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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,312

09/27/2004

Jianming Xu

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EXAMINER

LIM, STEVEN

ART UNIT

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,312

Applicant(s)

XU ET AL.

Examiner

Steven Lim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 9, 11-13, 15, and 19, are rejected under 35 U.S.C. 102(b) as being anticipated by Josse et al. (US 6104929).
3. Regarding Claims 1 and 11, Josse et al. teaches exchanging messages between the Mobile Station (Fig. 1, Item 40) and the Radio Access Network (Fig. 1, Item 30) and between the Radio Access Network and the Core Network (Fig. 1, Item 20) through a Hybrid Atrium (SGSN, Fig. 1, Item 24, Col. 4, Lines 33-57) where the Hybrid Atrium includes an ability to exchange short messages (Attach Request Message) with the MS (Col. 2, Lines 44-58).
4. Regarding Claims 2 and 12, Josse et al. further teaches initiating a data session by the MS with the Hybrid Atrium (SGSN) through a Base Station (Fig. 1, Items 24 and 30), updating a Home Location Register by the Hybrid Atrium (Col. 2, Lines 44-58), informing a QoS by the HLR, and negotiating a QoS by the Hybrid MSC (Col. 7, Lines 22-32, and tables 1-3).

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 4, 6, 7, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of 3GPP (ETSI TS 123 060 V3.3.0 (2000-04)).

11. Regarding Claims 4 and 14, Josse et al. further discloses establishing a connection (PDP Contexts) and data transfer between the Hybrid Atrium and the MS (Col. 4, Lines 45-51, Col. 2, Lines 9-15), however Josse et al. fails to disclose the connection being a PPP.

In an analogous art, 3GPP discloses PDPs can be of the type PPP which enables a N-PDU of 1 502 octets (Page 124, Section 9.3).

It would have been obvious to one having ordinary skill in the art at the time of invention was made to establish a PPP connection in order to allow the system to have a N-PDU maximum size of 1 502 octets (Page 124, Section 9.3).

12. Regarding Claims 6 and 16, Josse et al. further discloses establishing a connection (PDP Contexts) between the Hybrid Atrium and the MS (Col. 4, Lines 45-51), however Josse et al. fails to disclose the connection being PPP, sending a termination request from a Base Station Controller for the MS to the Hybrid Atrium, exchanging messages between the Hybrid Atrium and the CN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS.

In an analogous art, 3GPP discloses PDPs can be of the type PPP (Page 124, Section 9.3), sending a termination request from a Base Station Controller for the MS to

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5. Regarding Claims 3 and 13, Josse et al. further teaches sending a short message (attach reply) to the MS from the Hybrid Atrium (Col. 7, Lines 52-53) and sending a short message reply (attach request) from the MS to the Hybrid Atrium (Col. 7, Lines 22-23).

6. Regarding Claims 5 and 15, Josse et al. further teaches updating the CN with a data session context update (PDP) through the Hybrid Atrium (update SGSN request, Col. 7, Lines 34-37).

7. Regarding Claims 9 and 19, Josse et al. further teaches exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 24₁ and 24₂).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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the Hybrid Atrium (SGSN, Page 120, Section 9.2.4.1), exchanging messages between the Hybrid Atrium and the CN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS (Page 120, Section 9.2.4.1), which enables the system to follow GPRS standards.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to initiate a connection termination from the mobile station because packet data transfer is no longer required and to follow the standards regarding GPRS.

13. Regarding Claims 7 and 17, Josse et al. further discloses establishing a connection (PDP Contexts) between the Hybrid Atrium and the MS (Col. 4, Lines 45-51), however Josse et al. fails to disclose the connection being PPP, sending a termination request from the CN to the Hybrid Atrium, exchanging messages between the Hybrid Atrium and the MS to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS.

In an analogous art, 3GPP discloses PDPs can be of the type PPP (Page 124, Section 9.3), sending a termination request from a CN (internet host) to the Hybrid Atrium (SGSN, Page 122, Section 9.2.4.3), exchanging messages between the Hybrid Atrium and the MN to terminate the PPP connection and terminating the PPP connection between the Hybrid Atrium and the MS (Page 122, Section 9.2.4.3), which enables the system to follow GPRS standards.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to initiate a connection termination from the core network because packet data transfer is no longer required and to follow the standards regarding GPRS.

14. Claims 8, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Weissman (US 20030188319).

15. Regarding Claims 8 and 18, Josse et al. further discloses exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 24₁ and 24₂), however, Josse et al. fails to disclose handoff between Packet Data Service Nodes.

In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

It would have been obvious to one having ordinary skill in the art at the time of invention was made to combine and handoff between PDSNs to allow the cellular device to communicate to a compatible network (Paragraph 64).

16. Regarding Claim 21, Josse et al. teaches exchanging messages between the Mobile Station (Fig. 1, Item 40) and the Radio Access Network (Fig. 1, Item 30) and between the Radio Access Network and the Core Network (Fig. 1, Item 20) through a Hybrid Atrium (SGSN, Fig. 1, Item 24, Col. 4, Lines 33-57) where the Hybrid Atrium includes an ability to exchange short messages (Attach Request Message) with the MS (Col. 2, Lines 44-58), a SGSN (SGSN in communication with SGSN, Fig. 1, Item 24₁

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Lim whose telephone number is (571) 270-1210. The examiner can normally be reached on Mon-Thurs 9:00am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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and 24₂), a GGSN (Fig. 1, Item 20), however Josse et al. fails to disclose the Hybrid Atrium exchanging messages with a PDSN.

In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

It would have been obvious to one having ordinary skill in the art at the time of invention was made use a PDSNs instead of a SGSN to allow the cellular device to communicate to a compatible network (Paragraph 64).

17. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josse et al. (US 6104929) in view of Weissman (US 20030188319) and further in view of Grilli et al. (US 20030002525).

18. Regarding Claims 10 and 20, Josse et al. further teaches exchanging messages includes an ability to handoff between Serving General Packet Radio Service Nodes (SGSN, Col. 6, Lines 1-12, Fig. 1, Item 50, 24₁ and 24₂), however Josse et al. fails to disclose handoff between a PDSN and SGSN.

In an analogous art, Weissman discloses a combination of SGSN and PDSN to enable the cellular system to communicate with its compatible network (Paragraph 64).

In an analogous art, Grilli et al. discloses a hybrid GSM/CDMA network with handoff (Fig. 13).

It would have been obvious to one having ordinary skill in the art at the time of invention was made to handoff between a PDSN and SGSN to allow the cellular device to operate data transmission in a hybrid network.